#6

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/800,103

DATE: 08/21/2001
TIME: 11:49:41

Input Set : A:\LEX-0143-USA SEQLIST.txt
Output Set: N:\CRF3\08162001\I800103.raw

ENTERED

<110> APPLICANT: Donoho, Gregory
Scoville, John
Zambrowicz, Brian
Cullinan, Emily
Kieke, James A.
Hu, Yi
Turner, C. Alexander Jr.
Walke, D. Wade
<120> TITLE OF INVENTION: Novel Human Transporter Proteins and Polynucleotides Encoding the Same
<130> FILE REFERENCE: Lex-0143-USA
oke--> <140> CURRENT APPLICATION NUMBER: US/09/800,103
c--> <141> CURRENT FILING DATE: 2001-03-06
<150> PRIOR APPLICATION NUMBER: US 60/187,120
<151> PRIOR FILING DATE: 2000-03-06
<150> PRIOR APPLICATION NUMBER: US 60/204,725
<151> PRIOR FILING DATE: 2000-05-16
<160> NUMBER OF SEQ ID NOS: 40
<170> SOFTWARE: FastSEQ for Windows Version 4.0
<210> SEQ ID NO: 1
<211> LENGTH: 1311
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 1

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cccgagtgcc aggcatggac ggggacgctg ctgctgggca cgtgccttct gtactgcgcc 120
cgctccagca tgcccatctg caccgtctcc atgagccagg acttcggctg gaacaagaag 180
gaggccggca tcgtgctcag cagcttcttc tggggctact gcctgacaca ggttgtgggc 240
ggccacctcg gggatcggat tgggggtgag aaggtcatcc tgctgtcagc ctctgcctgg 300
ggctccatca cggccgtcac cccactgctc gcccacctga gcagtgccca cctggccttc 360
atgaccttct cacgcatcct catgggcttg ctccaagggg tttacttccc tgccctgacc 420
agcctgctgt cgcagaaggt gcgggagagt gagcgagcct tcacctacag catcgtgggc 480
gccggctccc agtttgggac gctgctgacc ggggcggtgg gctccctgct cctggaatgg 540
tacggctggc agagcatctt ctatttctcc ggcggcctca ccttgctttg ggtgtggtac 600
gtgtacaggt acctgctgag tgaaaaagat ctcatcctgg ccttgggtgt cctggcccaa 660
agccggccgg tgtccaggca cagcagagtc ccctggagac ggctcttccg gaagcctgct 720
gtctgggcag ccgtcgtctc ccagctctct gcagcctgct ccttcttcat cctcctctcc 780
tggctgccca ccttcttcga ggagaccttc cccgacgcca agggctggat cttcaacgtg 840
gttccttggt tggtggcgat tccggccagt ctattcagcg ggtttctctc tgatcatctc 900
atcaatcagg gttacagagc catcacggtg cggaagctca tgcagggcat gggccttggc 960
ctctccagcg tctttgctct gtgcctgggc cacacctcca gcttctgtga gtctgtggtc 1020
tttgcatcag cctccatcgg cctccagacc ttcaaccaca gtggcatttc tgttaacatc 1080
caggacttgg ccccgtcctg cgccggcttt ctgtttggtg tggccaacac agccggggcc 1140
ttggcaggtg tcgtgggtgt gtgtctaggc ggctacttga tggagaccac gggctcctgg 1200
acttgcctgt tcaaccttgt ggccatcatc agcaacctgg ggctgtgcac cttcctggtg 1260
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<210> SEQ ID NO: 2

RAW SEQUENCE LISTING DATE: 08/21/2001
PATENT APPLICATION: US/09/800,103 TIME: 11:49:41

Input Set : A:\LEX-0143-USA SEQLIST.txt
Output Set: N:\CRF3\08162001\I800103.raw

<211> LENGTH: 436
<212> TYPE: PRT
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 2

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 1               5                  10                  15
Gln Trp Ser Arg Pro Glu Cys Gln Ala Trp Thr Gly Thr Leu Leu Leu
            20                  25                  30
Gly Thr Cys Leu Leu Tyr Cys Ala Arg Ser Ser Met Pro Ile Cys Thr
        35                  40                  45
Val Ser Met Ser Gln Asp Phe Gly Trp Asn Lys Lys Glu Ala Gly Ile
    50                  55                  60
Val Leu Ser Ser Phe Phe Trp Gly Tyr Cys Leu Thr Gln Val Val Gly
65                  70                  75                  80
Gly His Leu Gly Asp Arg Ile Gly Gly Glu Lys Val Ile Leu Leu Ser
                85                  90                  95
Ala Ser Ala Trp Gly Ser Ile Thr Ala Val Thr Pro Leu Leu Ala His
            100                 105                 110
Leu Ser Ser Ala His Leu Ala Phe Met Thr Phe Ser Arg Ile Leu Met
        115                 120                 125
Gly Leu Leu Gln Gly Val Tyr Phe Pro Ala Leu Thr Ser Leu Leu Ser
    130                 135                 140
Gln Lys Val Arg Glu Ser Glu Arg Ala Phe Thr Tyr Ser Ile Val Gly
145                 150                 155                 160
Ala Gly Ser Gln Phe Gly Thr Leu Leu Thr Gly Ala Val Gly Ser Leu
                165                 170                 175
Leu Leu Glu Trp Tyr Gly Trp Gln Ser Ile Phe Tyr Phe Ser Gly Gly
            180                 185                 190
Leu Thr Leu Leu Trp Val Trp Tyr Val Tyr Arg Tyr Leu Leu Ser Glu
        195                 200                 205
Lys Asp Leu Ile Leu Ala Leu Gly Val Leu Ala Gln Ser Arg Pro Val
    210                 215                 220
Ser Arg His Ser Arg Val Pro Trp Arg Arg Leu Phe Arg Lys Pro Ala
225                 230                 235                 240
Val Trp Ala Ala Val Val Ser Gln Leu Ser Ala Ala Cys Ser Phe Phe
                245                 250                 255
Ile Leu Leu Ser Trp Leu Pro Thr Phe Phe Glu Glu Thr Phe Pro Asp
            260                 265                 270
Ala Lys Gly Trp Ile Phe Asn Val Val Pro Trp Leu Val Ala Ile Pro
        275                 280                 285
Ala Ser Leu Phe Ser Gly Phe Leu Ser Asp His Leu Ile Asn Gln Gly
    290                 295                 300
Tyr Arg Ala Ile Thr Val Arg Lys Leu Met Gln Gly Met Gly Leu Gly
305                 310                 315                 320
Leu Ser Ser Val Phe Ala Leu Cys Leu Gly His Thr Ser Ser Phe Cys
                325                 330                 335
Glu Ser Val Val Phe Ala Ser Ala Ser Ile Gly Leu Gln Thr Phe Asn
            340                 345                 350
His Ser Gly Ile Ser Val Asn Ile Gln Asp Leu Ala Pro Ser Cys Ala
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RAW SEQUENCE LISTING DATE: 08/21/2001
PATENT APPLICATION: US/09/800,103 TIME: 11:49:41

Input Set : A:\LEX-0143-USA SEQLIST.txt
Output Set: N:\CRF3\08162001\I800103.raw

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109         355                 360                 365
110 Gly Phe Leu Phe Gly Val Ala Asn Thr Ala Gly Ala Leu Ala Gly Val
111     370                 375                 380
112 Val Gly Val Cys Leu Gly Gly Tyr Leu Met Glu Thr Thr Gly Ser Trp
113 385                 390                 395                 400
114 Thr Cys Leu Phe Asn Leu Val Ala Ile Ile Ser Asn Leu Gly Leu Cys
115                 405                 410                 415
116 Thr Phe Leu Val Phe Gly Gln Ala Gln Arg Val Asp Leu Ser Ser Thr
117             420                 425                 430
118 His Glu Asp Leu
119         435
121 <210> SEQ ID NO: 3
122 <211> LENGTH: 1179
123 <212> TYPE: DNA
124 <213> ORGANISM: Homo sapiens
126 <400> SEQUENCE: 3
127 atgaccctga caagcaggcg ccaggacagt caggaggcca ggcccgagtg ccaggcatgg      60
128 acggggacgc tgctgctggg cacgtgcctt ctgtactgcg cccgctccag catgcccatc     120
129 tgcaccgtct ccatgagcca ggacttcggc tggaacaaga aggaggccgg catcgtgctc     180
130 agcagcttct tctggggcta ctgcctgaca caggttgtgg gcggccacct cggggatcgg     240
131 attgggggtg agaaggtcat cctgctgtca gcctctgcct ggggctccat cacggccgtc     300
132 accccactgc tcgcccacct gagcagtgcc cacctggcct tcatgacctt ctcacgcatc     360
133 ctcatgggct tgctccaagg ggtttacttc cctgccctga ccagcctgct gtcgcagaag     420
134 gtgcgggaga gtgagcgagc cttcacctac agcatcgtgg gcgccggctc ccagtttggg     480
135 acgctgctga ccggggcggt gggctccctg ctcctggaat ggtacggctg gcagagcatc     540
136 ttctatttct ccggcggcct caccttgctt tgggtgtggt acgtgtacag gtacctgctg     600
137 agtgaaaaag atctcatcct ggccttgggt gtcctggccc aaagccggcc ggtgtccagg     660
138 cacagcagag tcccctggag acggctcttc cggaagcctg ctgtctgggc agccgtcgtc     720
139 tcccagctct ctgcagcctg ctccttcttc atcctcctct cctggctgcc caccttcttc     780
140 gaggagacct tccccgacgc caagggctgg atcttcaacg tggttccttg gttggtggcg     840
141 attccggcca gtctattcag cgggtttctc tctgatcatc tcatcaatca gggttacaga     900
142 gccatcacgg tgcggaagct catgcagggc atgggccttg gcctctccag cgtctttgct     960
143 ctgtgcctgg gccacacctc cagcttctgt gagtctgtgg tctttgcatc agcctccatc    1020
144 ggcctccaga ccttcaacca cagtggcatt tctgttaaca tccaggactt ggccccgtcc    1080
145 tgcgccggct ttctgtttgg tgtggccaac acagccgggg ccttggcagg tgaggggcgg    1140
146 gcctctgtgc ccaggagttc ccctgtctgt ggggtttga                          1179
148 <210> SEQ ID NO: 4
149 <211> LENGTH: 392
150 <212> TYPE: PRT
151 <213> ORGANISM: Homo sapiens
153 <400> SEQUENCE: 4
154 Met Thr Leu Thr Ser Arg Arg Gln Asp Ser Gln Glu Ala Arg Pro Glu
155  1               5                  10                  15
156 Cys Gln Ala Trp Thr Gly Thr Leu Leu Leu Gly Thr Cys Leu Leu Tyr
157             20                  25                  30
158 Cys Ala Arg Ser Ser Met Pro Ile Cys Thr Val Ser Met Ser Gln Asp
159         35                  40                  45
160 Phe Gly Trp Asn Lys Lys Glu Ala Gly Ile Val Leu Ser Ser Phe Phe
161     50                  55                  60
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RAW SEQUENCE LISTING DATE: 08/21/2001
PATENT APPLICATION: US/09/800,103 TIME: 11:49:41

Input Set : A:\LEX-0143-USA SEQLIST.txt
Output Set: N:\CRF3\08162001\I800103.raw

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Trp Gly Tyr Cys Leu Thr Gln Val Val Gly Gly His Leu Gly Asp Arg
65                  70                  75                  80
Ile Gly Gly Glu Lys Val Ile Leu Leu Ser Ala Ser Ala Trp Gly Ser
                85                  90                  95
Ile Thr Ala Val Thr Pro Leu Leu Ala His Leu Ser Ser Ala His Leu
            100                 105                 110
Ala Phe Met Thr Phe Ser Arg Ile Leu Met Gly Leu Leu Gln Gly Val
        115                 120                 125
Tyr Phe Pro Ala Leu Thr Ser Leu Leu Ser Gln Lys Val Arg Glu Ser
    130                 135                 140
Glu Arg Ala Phe Thr Tyr Ser Ile Val Gly Ala Gly Ser Gln Phe Gly
145                 150                 155                 160
Thr Leu Leu Thr Gly Ala Val Gly Ser Leu Leu Leu Glu Trp Tyr Gly
                165                 170                 175
Trp Gln Ser Ile Phe Tyr Phe Ser Gly Gly Leu Thr Leu Leu Trp Val
            180                 185                 190
Trp Tyr Val Tyr Arg Tyr Leu Leu Ser Glu Lys Asp Leu Ile Leu Ala
        195                 200                 205
Leu Gly Val Leu Ala Gln Ser Arg Pro Val Ser Arg His Ser Arg Val
    210                 215                 220
Pro Trp Arg Arg Leu Phe Arg Lys Pro Ala Val Trp Ala Ala Val Val
225                 230                 235                 240
Ser Gln Leu Ser Ala Ala Cys Ser Phe Phe Ile Leu Leu Ser Trp Leu
                245                 250                 255
Pro Thr Phe Phe Glu Glu Thr Phe Pro Asp Ala Lys Gly Trp Ile Phe
            260                 265                 270
Asn Val Val Pro Trp Leu Val Ala Ile Pro Ala Ser Leu Phe Ser Gly
        275                 280                 285
Phe Leu Ser Asp His Leu Ile Asn Gln Gly Tyr Arg Ala Ile Thr Val
    290                 295                 300
Arg Lys Leu Met Gln Gly Met Gly Leu Gly Leu Ser Ser Val Phe Ala
305                 310                 315                 320
Leu Cys Leu Gly His Thr Ser Ser Phe Cys Glu Ser Val Val Phe Ala
                325                 330                 335
Ser Ala Ser Ile Gly Leu Gln Thr Phe Asn His Ser Gly Ile Ser Val
            340                 345                 350
Asn Ile Gln Asp Leu Ala Pro Ser Cys Ala Gly Phe Leu Phe Gly Val
        355                 360                 365
Ala Asn Thr Ala Gly Ala Leu Ala Gly Glu Gly Arg Ala Ser Val Pro
    370                 375                 380
Arg Ser Ser Pro Val Cys Gly Val
385                 390
<210> SEQ ID NO: 5
<211> LENGTH: 1197
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 5
atgcagccac ccccagacga ggcccgcagg gacatggccg gggacaccca gtggtccagg      60
cccgagtgcc aggcatggac ggggacgctg ctgctgggca cgtgccttct gtactgcgcc     120
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RAW SEQUENCE LISTING DATE: 08/21/2001
PATENT APPLICATION: US/09/800,103 TIME: 11:49:41

Input Set : A:\LEX-0143-USA SEQLIST.txt
Output Set: N:\CRF3\08162001\I800103.raw

213 cgctccagca tgcccatctg caccgtctcc atgagccagg acttcggctg gaacaagaag 180
214 gaggccggca tcgtgctcag cagcttcttc tggggctact gcctgacaca ggttgtgggc 240
215 ggccacctcg gggatcggat tgggggtgag aaggtcatcc tgctgtcagc ctctgcctgg 300
216 ggctccatca cggccgtcac cccactgctc gcccacctga gcagtgccca cctggccttc 360
217 atgaccttct cacgcatcct catgggcttg ctccaagggg tttacttccc tgccctgacc 420
218 agcctgctgt cgcagaaggt gcgggagagt gagcgagcct tcacctacag catcgtgggc 480
219 gccggctccc agtttgggac gctgctgacc ggggcggtgg gctccctgct cctggaatgg 540
220 tacggctggc agagcatctt ctatttctcc ggcggcctca ccttgctttg ggtgtggtac 600
221 gtgtacaggt acctgctgag tgaaaaagat ctcatcctgg ccttgggtgt cctggcccaa 660
222 agccggccgg tgtccaggca cagcagagtc ccctggagac ggctcttccg gaagcctgct 720
223 gtctgggcag ccgtcgtctc ccagctctct gcagcctgct ccttcttcat cctcctctcc 780
224 tggctgccca ccttcttcga ggagaccttc cccgacgcca agggctggat cttcaacgtg 840
225 gttccttggt tggtggcgat tccggccagt ctattcagcg ggtttctctc tgatcatctc 900
226 atcaatcagg gttacagagc catcacggtg cggaagctca tgcagggcat gggccttggc 960
227 ctctccagcg tctttgctct gtgcctgggc cacacctcca gcttctgtga gtctgtggtc 1020
228 tttgcatcag cctccatcgg cctccagacc ttcaaccaca gtggcatttc tgttaacatc 1080
229 caggacttgg ccccgtcctg cgccggcttt ctgtttggtg tggccaacac agccggggcc 1140
230 ttggcaggtg aggggcgggc ctctgtgccc aggagttccc ctgtctgtgg ggtttga 1197

232 <210> SEQ ID NO: 6
233 <211> LENGTH: 398
234 <212> TYPE: PRT
235 <213> ORGANISM: Homo sapiens
237 <400> SEQUENCE: 6

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238 Met Gln Pro Pro Pro Asp Glu Ala Arg Arg Asp Met Ala Gly Asp Thr
239  1               5                  10                  15
240 Gln Trp Ser Arg Pro Glu Cys Gln Ala Trp Thr Gly Thr Leu Leu Leu
241             20                  25                  30
242 Gly Thr Cys Leu Leu Tyr Cys Ala Arg Ser Ser Met Pro Ile Cys Thr
243         35                  40                  45
244 Val Ser Met Ser Gln Asp Phe Gly Trp Asn Lys Lys Glu Ala Gly Ile
245     50                  55                  60
246 Val Leu Ser Ser Phe Phe Trp Gly Tyr Cys Leu Thr Gln Val Val Gly
247 65                  70                  75                  80
248 Gly His Leu Gly Asp Arg Ile Gly Gly Glu Lys Val Ile Leu Leu Ser
249                 85                  90                  95
250 Ala Ser Ala Trp Gly Ser Ile Thr Ala Val Thr Pro Leu Leu Ala His
251             100                 105                 110
252 Leu Ser Ser Ala His Leu Ala Phe Met Thr Phe Ser Arg Ile Leu Met
253         115                 120                 125
254 Gly Leu Leu Gln Gly Val Tyr Phe Pro Ala Leu Thr Ser Leu Leu Ser
255     130                 135                 140
256 Gln Lys Val Arg Glu Ser Glu Arg Ala Phe Thr Tyr Ser Ile Val Gly
257 145                 150                 155                 160
258 Ala Gly Ser Gln Phe Gly Thr Leu Leu Thr Gly Ala Val Gly Ser Leu
259                 165                 170                 175
260 Leu Leu Glu Trp Tyr Gly Trp Gln Ser Ile Phe Tyr Phe Ser Gly Gly
261             180                 185                 190
262 Leu Thr Leu Leu Trp Val Trp Tyr Val Tyr Arg Tyr Leu Leu Ser Glu
263         195                 200                 205
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VERIFICATION SUMMARY DATE: 08/21/2001
PATENT APPLICATION: **US/09/800,103** TIME: 11:49:42

Input Set : **A:\LEX-0143-USA SEQLIST.txt**
Output Set: **N:\CRF3\08162001\I800103.raw**

L:19 M:270 C: Current Application Number differs, Replaced Current Application No
L:19 M:271 C: Current Filing Date differs, Replaced Current Filing Date